Phoenix®

PhoenixBIOS 4.0 Release 6

Setup Guide

Use the PhoenixBIOS Setup program for:

- Setting system time and date.
- Installing new drives for hard disks and floppy disks.
- Enhancing system performance by controlling advanced features such as shadow memory and cache memory.

The Setup menus shown here are from a typical system. The menus on your system may be quite different as they depend on the hardware and features installed on your system. Consult the Setup manual that came with your system for complete information.

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Phoenix Technologies Ltd.
Desktop Division
135 Technology Drive
Irvine, CA 92618
http://www.phoenix.com

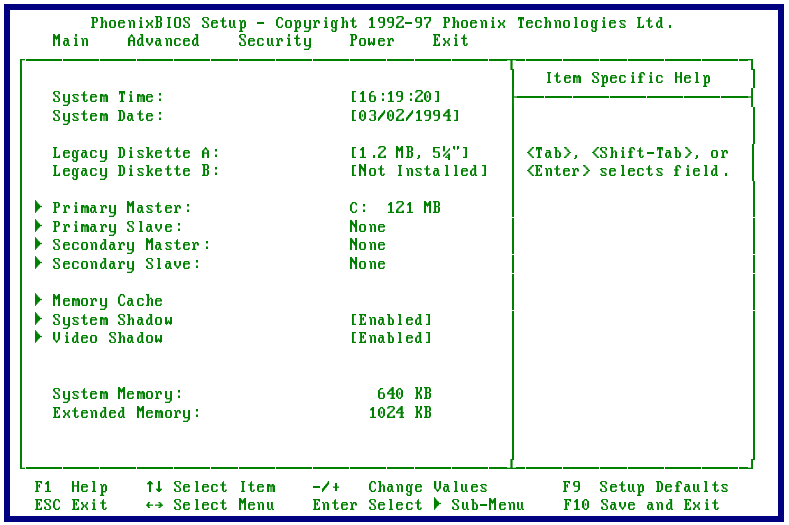
The Main Menu

To start the ***Phoenix*BIOS** Setup utility:

1. Turn on or reboot your system. PhoenixBIOS displays this message:

   `Press <F2> to enter SETUP`

2. Pressing <F2> displays the Main Menu, which looks like this:


PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Main Advanced Security Power Exit
Item Specific Help
System Time: [16:19:20]
System Date: [03/02/1994]
Legacy Diskette A: [1.2 MB, 5¼"]
Legacy Diskette B: [Not Installed]
<Tab>, <Shift-Tab>, or <Enter> selects field.
Primary Master: C: 121 MB
Primary Slave: None
Secondary Master: None
Secondary Slave: None
Memory Cache
System Shadow [Enabled]
Video Shadow [Enabled]
System Memory: 640 KB
Extended Memory: 1024 KB
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Select ▸ Sub-Menu F10 Save and Exit

You can make the following selections on the Main Menu itself. Use the sub menus for other selections.

Feature	Options	Description
System Time	HH:MM:SS	Set the system time.
System Date	MM/DD/YYYY	Set the system date.
Diskette 1 Diskette 2	360 kB, 5 ¼" 1.2 MB, 5 ¼" 720 kB, 3 ½" 1.44/1.25 MB, 3 ½" 2.88 MB, 3 ½" Not installed Disabled	Select the type of floppy-disk drive installed in your system. 1.25 MB is a Japanese media format that requires a 3½" 3-Mode Diskette drive.
System Memory	N/A	Displays amount of conventional memory detected during bootup.
Extended Memory	N/A	Displays the amount of extended memory detected during bootup.

You can set the boot sequence of the bootable drives by selecting Boot Sequence on the Main Menu or opening the Boot Menu (See p. 6).

Masters and Slaves

The **Master** and **Slave** settings on the Main Menu control these types of devices:

Hard-disk drives

Removable-disk drives

CD-ROM drives

*Phoenix*BIOS 4.04 supports up to two **IDE disk adapters**, called **primary** and **secondary** adapters. Each adapter supports one **master drive** and and one optional **slave drive** in these possible combinations:

1 Master
1 Master, 1 Slave
2 Masters
2 Masters, 1 Slave
2 Masters, 2 Slaves

There is one IDE connector for each adapter on your machine, usually labelled "Pimary IDE" and "Secondary IDE." There are usually two connectors on each ribbon cable attached to each IDE connector. When you have connected two drives to these connectors, the one on the end of the cable is the Master.

When you enter Setup, the Main Menu displays the results of **Autotyping**–information each drive provides about its own size and other characteristics–and how they are arranged as Masters or Slaves on your machine.

Note: Do not attempt to change these settings unless you have an installed drive that does not autotype properly (such as an older hard-disk drive that does not support autotyping).

If you need to change your drive settings, use one of the Master or Slave sub-menu as explained in the following.The Menu Bar

Navigating the Setup Menus

The Menu Bar at the top of the window lists these selections:

Main	Use this menu for basic system configuration.
Advanced	Use this menu to set the Advanced Features available on your system's chipset.
Security	Use this menu to set User and Supervisor Passwords and the Backup and Virus-Check reminders.
Power	Use this menu to configure Power-Management features.
Exit	Exits the current menu.

Use the left/right "← →" arrow keys to make a selection.

See the section below, "Exiting Setup," for a description on exiting the Main Menu.

The Legend Bar

Use the keys listed in the legend bar on the bottom to make your selections or exit the current menu. The chart on the following page describes the legend keys and their alternates:

Key	Function
<F1> or <Alt-H>	General Help window (See below).
<Esc>	Exit this menu.
← or → arrow keys	Select a different menu.
↑ or ↓ arrow keys	Move cursor up and down.
<Tab> or <Shift-Tab>	Cycle cursor up and down.
<Home> or <End>	Move cursor to top or bottom of window.
<PgUp> or <PgDn>	Move cursor to next or previous page.
<F5> or <->	Select the Previous Value for the field.
<F6> or <+> or <Space>	Select the Next Value for the field.
<F9>	Load the Default Configuration values for this menu.
<F10>	Load the Previous Configuration values for this menu.
<Enter>	Execute Command or Select *P* Submenu.
<Alt-R>	Refresh screen.

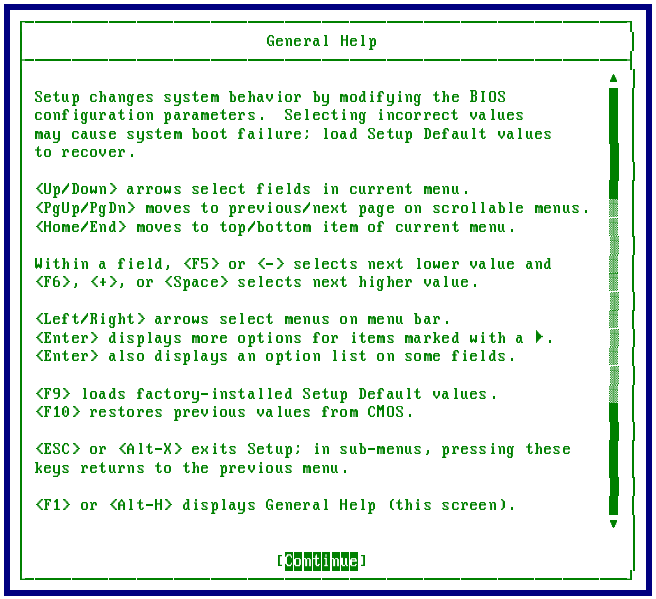
To select an item, use the arrow keys to move the cursor to the field you want. Then use the plus-and-minus value keys to select a value for that field. The Save Values commands in the Exit Menu save the values currently displayed in all the menus. **To display a sub menu**, use the arrow keys to move the cursor to the sub menu you want. Then press **<Enter>**. A pointer (▶) marks all sub menus.

The Field Help Window

The help window on the right side of each menu displays the help text for the currently selected field. It updates as you move the cursor to each field.

The General Help Window

Pressing **<F1>** or **<Alt-H>** on any menu brings up the General Help window that describes the legend keys and their alternates:

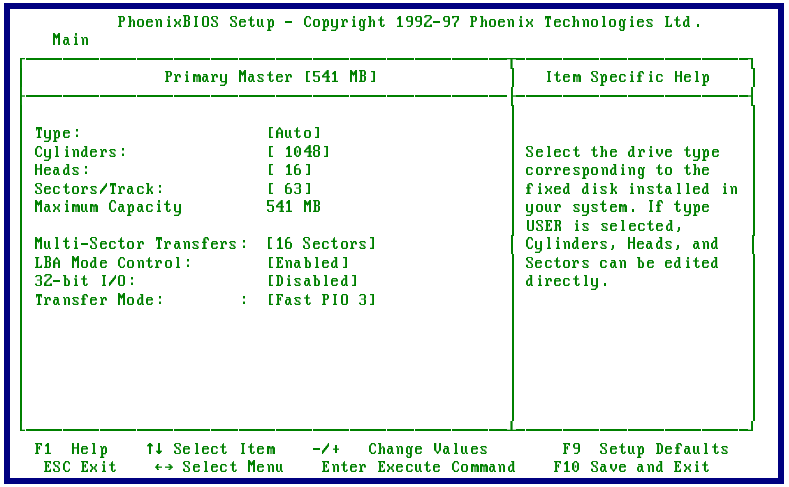

General Help
Setup changes system behavior by modifying the BIOS configuration parameters. Selecting incorrect values may cause system boot failure; load Setup Default values to recover.
<Up/Down> arrows select fields in current menu.
<PgUp/PgDn> moves to previous/next page on scrollable menus.
<Home/End> moves to top/bottom item of current menu.
Within a field, <F5> or <-> selects next lower value and <F6>, <+>, or <Space> selects next higher value.
<Left/Right> arrows select menus on menu bar.
<Enter> displays more options for items marked with a ▶.
<Enter> also displays an option list on some fields.
<F9> loads factory-installed Setup Default values.
<F10> restores previous values from CMOS.
<ESC> or <Alt-X> exits Setup; in sub-menus, pressing these keys returns to the previous menu.
<F1> or <Alt-H> displays General Help (this screen).
[Continue]

The scroll bar on the right of any window indicates that there is more than one page of information in the window. Use **<PgUp>** and **<PgDn>** to display all the pages. Pressing **<Home>** and **<End>** displays the first and last page. Pressing **<Enter>** displays each page and then exits the window.

Press **<Esc>** to exit the current window.

Advanced Hard Disk Features

If Advanced Hard Disk Features are installed, selecting one of the Master or Slave sub-menus on the Main Menu displays a menu like this:


PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Main
Primary Master [541 MB]
Item Specific Help
Type: [Auto]
Cylinders: [1048]
Heads: [16]
Sectors/Track: [63]
Maximum Capacity 541 MB
Multi-Sector Transfers: [16 Sectors]
LBA Mode Control: [Enabled]
32-bit I/O: [Disabled]
Transfer Mode: : [Fast PIO 3]
Select the drive type corresponding to the fixed disk installed in your system. If type USER is selected, Cylinders, Heads, and Sectors can be edited directly.
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Execute Command F10 Save and Exit

Use the legend keys listed on the bottom to make your selections and exit to the Main Menu.

Use the chart on the following page to configure the hard disk drive with Advanced Hard Disk Features:

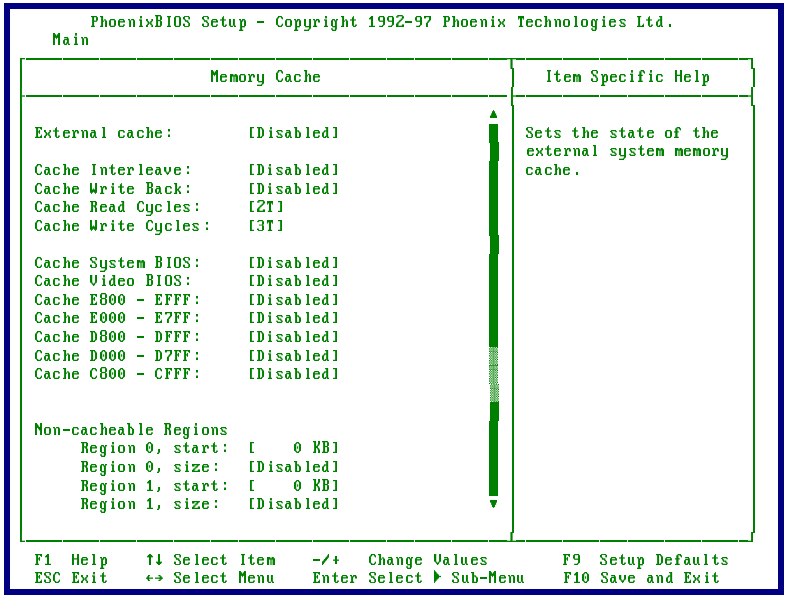
Feature	Options	Description
Type	None 1 to 39 User Auto IDE Removable CD-ROM ATAPI Removable	None = Autotyping is not able to supply the drive type or end user has selected None, disabling any drive that may be installed. 1 to 39 = Fills in all remaining fields with values for predefined hard-disk type. User = You supply the hard-disk drive information in the following fields. Auto = Autotyping, the drive itself supplies the information. IDE Removable = Removable disk drive CD-ROM = CD-ROM drive. ATAPI Removable = Removable disk drive.
Cylinders	1 to 65,536	Number of cylinders.
Heads	1 to 16	Number of read/write heads.
Sectors/Track	1 to 63	Number of sectors per track.
Multi-Sector Transfers	Disabled Standard 2 sectors 4 sectors 8 sectors 16 sectors	Any selection except Disabled determines the number of sectors transferred per block. Standard is 1 sector per block.
LBA Mode Control	Enabled Disabled	Enabling LBA causes Logical Block Addressing to be used in place of Cylinders, Heads, & Sectors.
32-Bit I/O	Enabled Disabled	Enables 32-bit communication between CPU and IDE card. Requires PCI or local bus.
Transfer Mode	Standard Fast PIO 1 Fast PIO 2 Fast PIO 3 Fast PIO 4 OR Standard Fast DMA A Fast DMA B Fast DMA F	Selects the method for transferring the data between the hard disk and system memory. The Setup menu only lists those options supported by the drive and platform.

WARNING: **Incorrect settings can cause your system to malfunction.**

Memory Cache

Enabling **cache** saves time for the CPU by holding data most recently accessed in regular memory (dynamic RAM or DRAM) in a special storage area of static RAM (SRAM), which is faster. Before accessing regular memory, the CPU first accesses the cache. If it does not find the data it is looking for there, it accesses regular memory.

Selecting "Memory Cache" from the Main menu displays a menu like the one shown here. The actual features displayed depend on your system's hardware.


PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Main
Memory Cache
Item Specific Help
External cache: [Disabled]
Cache Interleave: [Disabled]
Cache Write Back: [Disabled]
Cache Read Cycles: [2T]
Cache Write Cycles: [3T]
Cache System BIOS: [Disabled]
Cache Video BIOS: [Disabled]
Cache E800 - EFFF: [Disabled]
Cache E000 - E7FF: [Disabled]
Cache D800 - DFFF: [Disabled]
Cache D000 - D7FF: [Disabled]
Cache C800 - CFFF: [Disabled]
Non-cacheable Regions
Region 0, start: [0 KB]
Region 0, size: [Disabled]
Region 1, start: [0 KB]
Region 1, size: [Disabled]
Sets the state of the external system memory cache.
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Select ▶ Sub-Menu F10 Save and Exit

Use the legend keys listed on the bottom to make your selections and exit to the Main Menu.

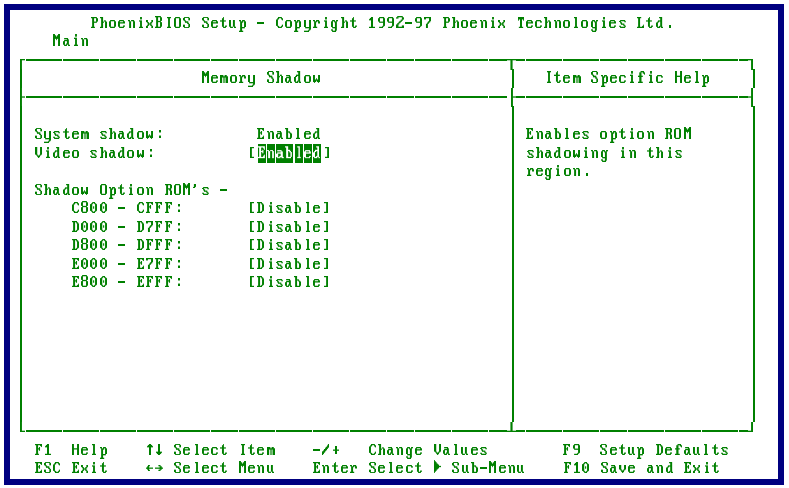
Use the chart on the following page to configure the memory cache.

Feature	Options	Description
External Cache	Enabled Disabled.	Generally enables or disables all memory caching.
Cache Interleave	Enabled Disabled	Interleaving multiple banks of static RAM improves CPU access.
Cache Write Back	Enabled Disabled	Enabled caches both reads and writes to memory. Disabled caches reads only.
Cache Read Cycles	Chipset Dependent	Sets the number of clock pulses for reading from the cache. Shorter number of pulses improves performance.
Cache Write Cycles	Chipset Dependent	Sets the number of clock pulses for writing to the cache. Shorter number of pulses improves performance.
Cache System BIOS	Enabled Disabled	Caches the system BIOS and improves performance.
Cache Video BIOS	Enabled Disabled	Caches the video BIOS and improves performance.
Cache segments, e.g., E800-EFFF	Enabled Disabled	Controls caching of individual segments of memory usually reserved for shadowing system or option ROMs
Non-cacheable regions:		Specifies areas of regular and extended memory as non-cacheable regions.
Region 0, start	0 Multiples of 64	Multiples of 64 define start of non-cacheable region 0 in kilobytes.
Region 0, size	Disabled Multiples of 64	Disabling makes this region available for cache. Multiples of 64 define size of non-cacheable region 0 in kilobytes.
Region 1, start	0 Multiples of 64	Multiples of 64 define start of non-cacheable region 1 in kilobytes.
Region 1, size	Disabled Multiples of 64	Disabling makes this region available for cache. Multiples of 64 define size of non-cacheable region 1 in kilobytes.

WARNING: **Incorrect settings can cause your system to malfunction.**

Memory Shadow

Selecting "System Shadow" or "Video Shadow" from the Main Menu displays a menu like the one shown here. The actual features displayed depend on the capabilities of your system's hardware.


PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Main
Memory Shadow
Item Specific Help
System shadow: Enabled
Video shadow: [Enabled]
Shadow Option ROM's -
C800 - CFFF: [Disable]
D000 - D7FF: [Disable]
D800 - DFFF: [Disable]
E000 - E7FF: [Disable]
E800 - EFFF: [Disable]
Enables option ROM shadowing in this region.
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Select ▶ Sub-Menu F10 Save and Exit

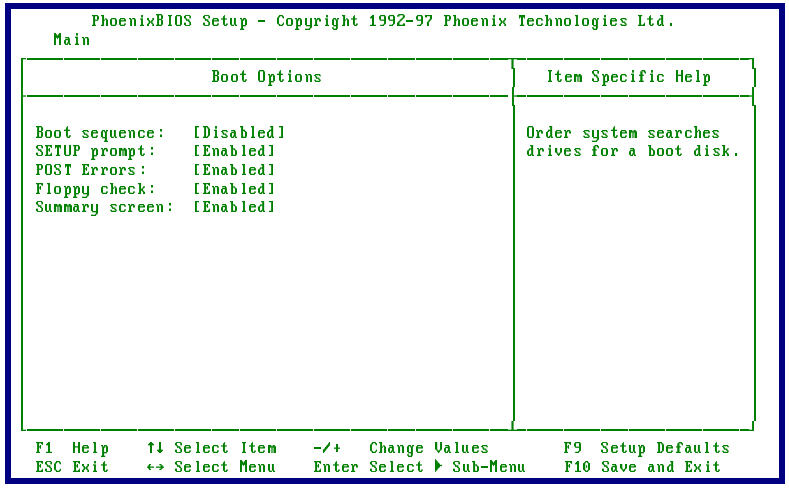
Use the legend keys to make your selections and exit to the Main Menu. Use the following chart to configure memory shadowing.

Feature	Options	Description
System shadow	N/A	Usually permanently enabled.
Video shadow	Enabled Disabled	Shadows video BIOS and improves performance.
Shadow Option ROM	Enabled Disabled	Shadows option ROM located in the specified segments of memory and can improve performance. WARNING: Some option ROMs do not work properly when shadowed.

WARNING: **Incorrect settings can cause your system to malfunction.**

Boot Sequence

Selecting "Boot Sequence" on the Main Menu displays the Boot Options menu.


PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Main
Boot Options
Item Specific Help
Boot sequence: [Disabled]
SETUP prompt: [Enabled]
POST Errors: [Enabled]
Floppy check: [Enabled]
Summary screen: [Enabled]
Order system searches drives for a boot disk.
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Select ▶ Sub-Menu F10 Save and Exit

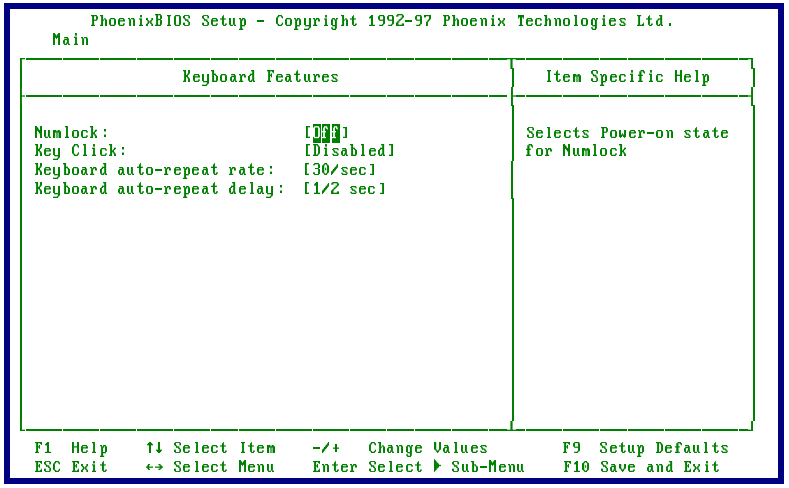
Use the legend keys to make your selections and exit to the Main Menu.

Use the following chart to select your boot options.

Feature	Options	Description
Boot sequence	A: then C; C: then A: C: only	The BIOS attempts to load the operating system from the disk drives in the sequence selected here.
Setup prompt	Enabled Disabled	Displays "Press <F2> for Setup" during bootup.
POST errors	Enabled Disabled	At boot error, pauses and displays "Press <F1> to resume, <F2> to Setup".
Floppy seek	Enabled Disabled	Seeks diskette drives during bootup. Disabling speeds boot time.
Summary screen	Enabled Disabled	Displays system summary screen during bootup.

Keyboard Features

Selecting "Numlock" on the Main Menu displays the Keyboard Features menu:


PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Main
Keyboard Features
Item Specific Help
Numlock: [Off]
Key Click: [Disabled]
Keyboard auto-repeat rate: [30/sec]
Keyboard auto-repeat delay: [1/2 sec]
Selects Power-on state for Numlock
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Select ▶ Sub-Menu F10 Save and Exit

Use the legend keys to make your selections and exit to the Main Menu.

Use the following chart to configure the keyboard features:

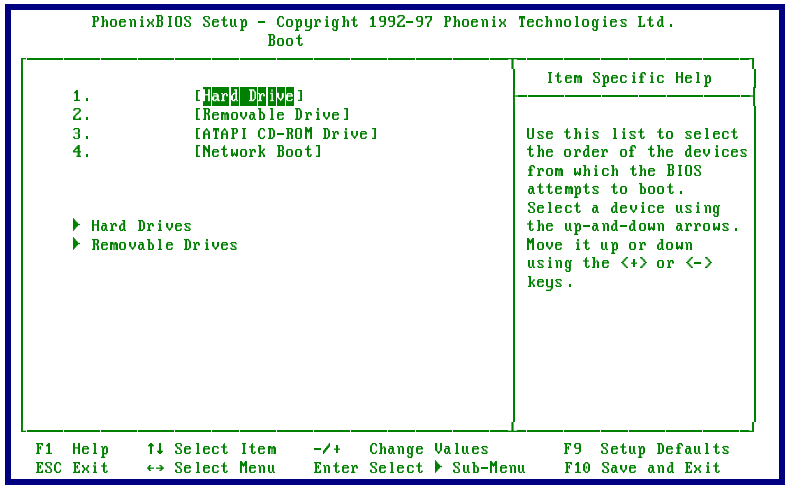
Feature	Options	Description
Numlock	Auto On Off	On or Off turns NumLock on or off at bootup. Auto turns NumLock on if it finds a numeric key pad.
Key Click	Enabled Disabled	Turns audible key click on.
Keyboard auto-repeat rate	2/sec 6/sec 10/sec 13.3/sec 21.8/sec 26.7/sec 30/sec	Sets the number of times a second to repeat a keystroke when you hold the key down.
Keyboard auto-lag delay	¼ sec ½ sec ¾ sec 1 sec	Sets the delay time after the key is held down before it begins to repeat the keystroke.

Boot Menu

After you turn on your computer, it will attempt to load the operating system (such as Windows 95) from the drive of your choice. If it cannot find the operating system on that drive, it will attempt to load it from one or more other drives in the order specified in the Boot Menu.

Note: Specifying any drive as a boot drive on the Boot Menu requires the installation of an operating system on that drive. Many PCs come with an operating system already installed on the hard drive (C:), which is often used for booting the operating system. To use another drive as a bootable drive may require your installing the operating system on it.

Selecting "Boot" from the Menu Bar displays the Boot menu, which looks like this:

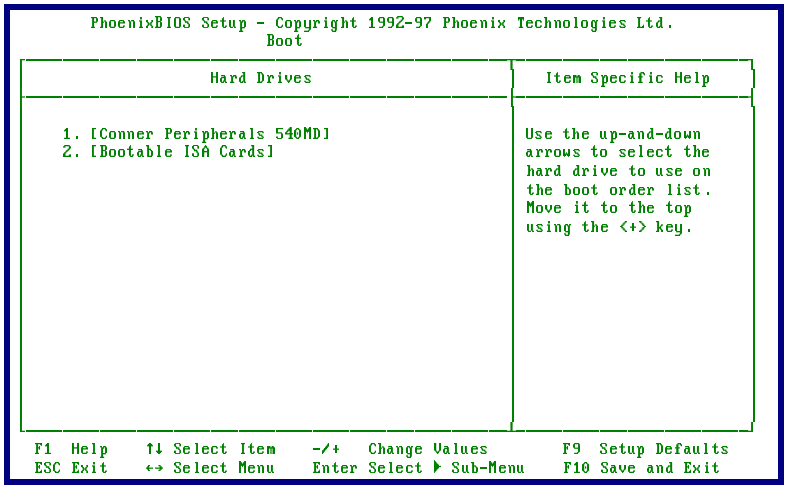

PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Boot
1. [Hard Drives]
2. [Removable Drive]
3. [ATAPI CD-ROM Drive]
4. [Network Boot]
Hard Drives
Removable Drives
Item Specific Help
Use this list to select the order of the devices from which the BIOS attempts to boot. Select a device using the up-and-down arrows. Move it up or down using the <+> or <-> keys.
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Select ▸ Sub-Menu F10 Save and Exit

You can arrange the **boot order list** at the top of this menu to specify the order of the devices from which the BIOS will attempt to boot the Operating System. To move a device, first select it with the up-or-down arrows, and move it up or down using the <+> and <-> keys.

Note: If you have more than one hard drive, or more than one removable drive, use the sub menus to specify which one to use on the boot order list, as described in the following pages.

Hard Drives

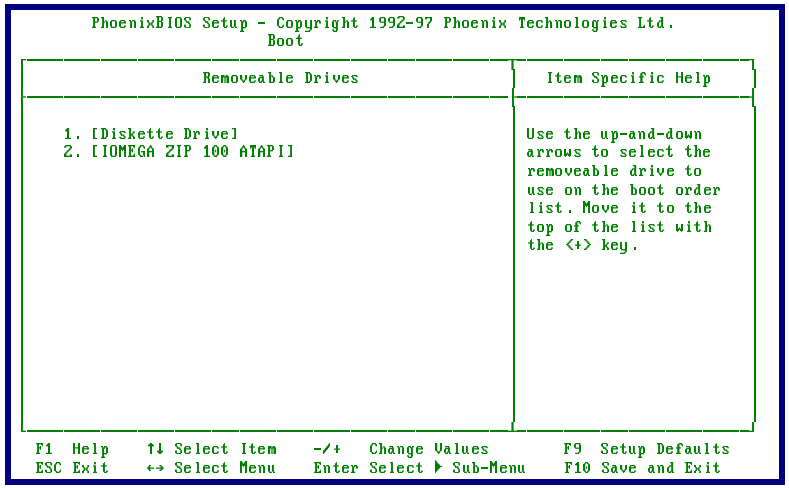
If you have more than one hard drive, selecting "Hard Drives" from the Boot Menu displays a menu like this:


PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Boot
Hard Drives
1. [Conner Peripherals 540MD]
2. [Bootable ISA Cards]
Item Specific Help
Use the up-and-down arrows to select the hard drive to use on the boot order list. Move it to the top using the <+> key.
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Select ▸ Sub-Menu F10 Save and Exit

Select the hard drive to use for booting by using the up-and-down arrows. Then move it to the top of this list using the <+> key.

Removable Drives

If you have more than one removable disk drive, selecting "Removeable Drives" from the Boot Menu displays a menu like this:

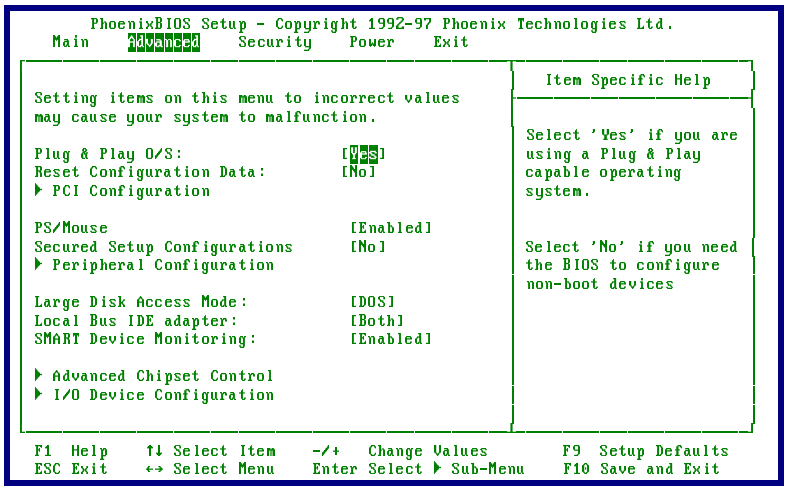

PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Boot
Removeable Drives
Item Specific Help
1. [Diskette Drive]
2. [IOMEGA ZIP 100 ATAPI]
Use the up-and-down arrows to select the removeable drive to use on the boot order list. Move it to the top of the list with the <+> key.
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Select ▶ Sub-Menu F10 Save and Exit

Select the removeable drive to use for booting the operating system using the up-and-down arrows. Then move it to the top of this list using the <+> key.

Note: The Diskette Drive specified here is the one assigned the number 1: on the Main Menu.

The Advanced Menu

Selecting "Advanced" from menu bar on the Main Menu displays a menu like this:


PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Main Advanced Security Power Exit
Item Specific Help
Setting items on this menu to incorrect values may cause your system to malfunction.
Plug & Play O/S: [Yes]
Reset Configuration Data: [No]
▶ PCI Configuration
PS/Mouse [Enabled]
Secured Setup Configurations [No]
▶ Peripheral Configuration
Large Disk Access Mode: [DOS]
Local Bus IDE adapter: [Both]
SMART Device Monitoring: [Enabled]
▶ Advanced Chipset Control
▶ I/O Device Configuration
Select 'Yes' if you are using a Plug & Play capable operating system.
Select 'No' if you need the BIOS to configure non-boot devices
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Select ▶ Sub-Menu F10 Save and Exit

Use the legend keys to make your selections and exit to the Main Menu. Use the following to make your selection.

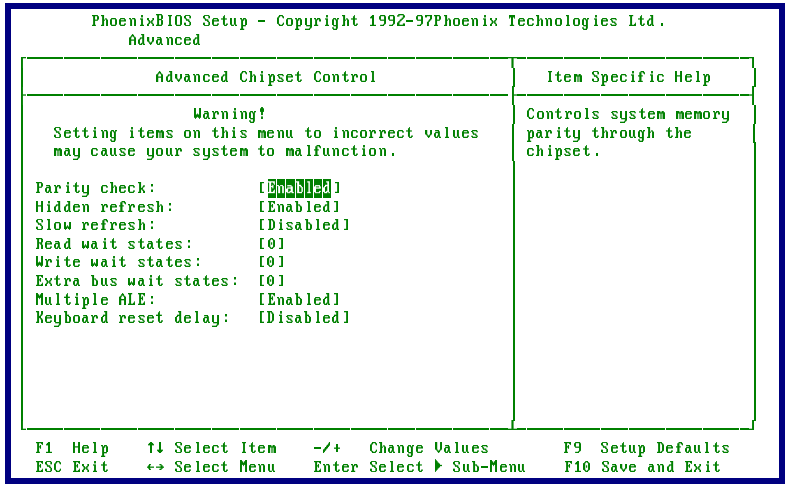
Feature	Options	Description
Plug and Play OS	Yes No	If your system has a Plug and Play Operating System, Yes lets the Operating System configure Plug and Play devices not required for boot. No makes the BIOS configure them.
Reset Configuration Data	Yes No	Yes erases all configuration data in ESCD, which stores the configuration settings for non-PnP plug-in devices. Select Yes when required to restore the manufacturer's defaults.
PS/2	Enabled Disabled Auto OS Controlled	Selecting Disabled prevents any installed PS/2 mouse from functioning, but frees up IRQ12
Secured Setup Configurations	No	Yes prevents the Operating System from overriding selections you have made in Setup.

Continued...

Feature	Options	Description
Large Disk Access Mode	DOS Other	Select DOS if you have DOS. Select Other if you have another operating system such as UNIX. A large disk is one that has more than 1024 cylinders, more than 16 heads, or more than 63 tracks per sector.

Advanced Chipset Control (No PCI)

In a system with no PCI, selecting "Advanced Chipset Control" from menu bar on the Advanced menu displays a menu like this:


PhoenixBIOS Setup - Copyright 1992-97Phoenix Technologies Ltd.
Advanced
Advanced Chipset Control
Item Specific Help
Warning!
Setting items on this menu to incorrect values may cause your system to malfunction.
Controls system memory parity through the chipset.
Parity check: [Enabled]
Hidden refresh: [Enabled]
Slow refresh: [Disabled]
Read wait states: [0]
Write wait states: [0]
Extra bus wait states: [0]
Multiple ALE: [Enabled]
Keyboard reset delay: [Disabled]
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Select ▸ Sub-Menu F10 Save and Exit

The chipset is an integrated circuit that acts as an interface between the CPU and much of the system's hardware. You can use this menu to change the values in the chipset registers and optimize your system's performance.

Use the legend keys to make your selections, display the sub menus, and exit to the Main Menu.

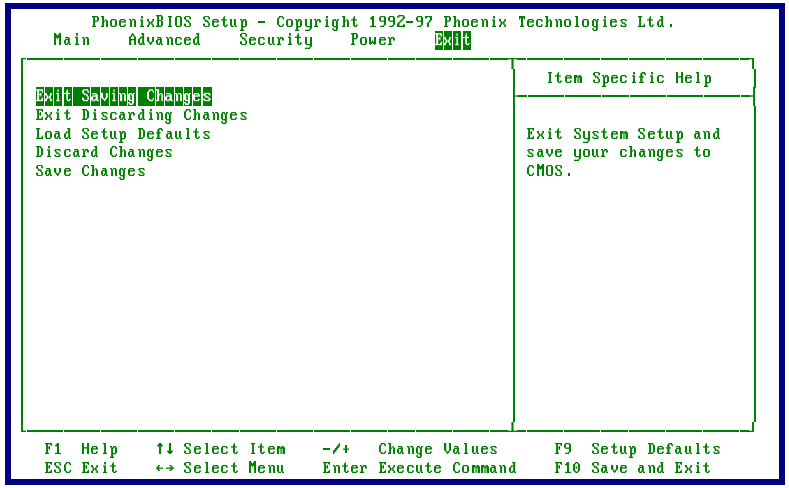
Use the following chart in configuring the chipset:

Feature	Options	Description
Parity check	Enabled Disabled	Controls system memory parity checking.
Hidden refresh	Enabled Disabled	Refreshes regular memory without holding up the CPU.
Slow Refresh	Enabled Disabled	Slows memory refresh by a factor of 4.
Read wait states	0 to n	Sets the number of wait states added to reads from system memory. Chipset dependent.
Write wait states	0 to n	Sets the number of wait states added to writes to system memory. Chipset dependent.
Extra bus wait states	0 to n	Sets the number of wait states added to accesses of the AT bus. Chipset dependent.
Multiple ALE	Enabled Disabled	Determines whether to use single or multiple ALEs during cycle conversion.
Keyboard reset delay	Enabled Disabled	Enabled adds a 2 microsecond delay before resetting the system.

NOTE: The contents of this menu depend on the chipset installed on your motherboard, and chipsets vary widely. Consult your dealer or the chipset manual before changing the items on this menu. Incorrect settings can cause your system to malfunction.

The Exit Menu

Selecting "Exit" from the menu bar displays this menu:


PhoenixBIOS Setup - Copyright 1992-97 Phoenix Technologies Ltd.
Main Advanced Security Power Exit
Exit Saving Changes
Exit Discarding Changes
Load Setup Defaults
Discard Changes
Save Changes
Item Specific Help
Exit System Setup and save your changes to CMOS.
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
ESC Exit ↔ Select Menu Enter Execute Command F10 Save and Exit

The following sections describe each of the options on this menu. Note that <Esc> does not exit this menu. You must select one of the items from the menu or menu bar to exit.

Exit Saving Values

After making your selections on the Setup menus, always select either "Exit Saving Valuet" or "Save Changes." Both procedures store the selections displayed in the menus in **CMOS** (short for "battery-backed CMOS RAM") a special section of memory that stays on after you turn your system off. The next time you boot your computer, the BIOS configures your system according to the Setup selections stored in CMOS.

After you save your selections, the program displays this message:

```
Values have been saved to CMOS!
    Press <space> to continue
```

If you attempt to exit without saving, the program asks if you want to save before exiting.

During bootup, *Phoenix*BIOS attempts to load the values saved in CMOS. If those values cause the system boot to fail, reboot and press **<F2>** to enter Setup. In Setup, you can get the Default Values (as described below) or try to change the selections that caused the boot to fail.

Exit Discarding Changes

Use this option to exit Setup without storing in CMOS any new selections you may have made. The selections previously in effect remain in effect.

Load Setup Defaults

To display the default values for all the Setup menus, select "Load Setup Defaults" from the Main Menu. The program displays this message:

```
ROM Default values have been loaded!
    Press <space> to continue
```

If, during bootup, the BIOS program detects a problem in the integrity of values stored in CMOS, it displays these messages:

```
System CMOS checksum bad - run SETUP
Press <F1> to resume,  <F2> to Setup
```

The CMOS values have been corrupted or modified incorrectly, perhaps by an application program that changes data stored in CMOS.

Press **<F1>** to resume the boot or **<F2>** to run Setup with the ROM default values already loaded into the menus. You can make other changes before saving the values to CMOS.

Discard Changes

If, during a Setup Session, you change your mind about changes you have made and have not yet saved the values to CMOS, you can restore the values you previously saved to CMOS.

Selecting “Discard Changes” on the Exit menu updates all the selections and displays this message:

```
CMOS values have been loaded!
    Press <space> to continue
```

Save Changes

Selecting “Save Changes” saves all the selections without exiting Setup. You can return to the other menus if you want to review and change your selections.